

Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claim 1 (Currently Amended): A method of storing data comprising:

connecting a data line to a first sense amplifier when a first bit line is disconnected from the first sense amplifier;

connecting the first sense amplifier to the first bit line when the data line is disconnected from the first sense amplifier; and

connecting the data line to a second sense amplifier when the first bit line is connected to the first sense amplifier,

wherein the first bit line is connected to the first sense amplifier via a switching transistor, and wherein the switching transistor is driven to be on by a first voltage and then driven to be on by a second voltage which is higher than the first voltage.

Claim 2 (Canceled)

Claim 3 (Original): The method of claim 1, further comprising connecting the second sense amplifier to a second bit line when the second sense amplifier is disconnected from the data line.

Claim 4 (Original): The method of claim 3, wherein the second bit line is included in a memory cell array block that is different from a memory cell array block in which the first bit line is included.

Claim 5 (Original): The method of claim 1, wherein the first bit line is connected to the first sense amplifier via a pair of transistors which are connected in parallel.

Claim 6 (Original): The method of claim 5, wherein the transistors include an N-channel transistor and a P-channel transistor, each of which is operated by complementary signals.

Claim 7 (Canceled)

Claim 8 (Original): A method of storing data comprising:

transferring first data from a data line to a first sense amplifier when a first bit line is disconnected from the first sense amplifier;

transferring the first data from the first sense amplifier to the first bit line after the first sense amplifier is disconnected from the data line;

transferring second data from the data line to a second sense amplifier when the first bit line is connected to the first sense amplifier; and

transferring the second data from the second sense amplifier to a second bit line

after the second sense amplifier is disconnected from the data line.

Claim 9 (Original): The method of claim 8, wherein the second bit line is included in a memory cell array block that is different from a memory cell array block in which the first bit line is included.

Claim 10 (Original): The method of claim 8, wherein the first data is transferred from the first sense amplifier to the first bit line via a pair of transistors which are connected in parallel.

Claim 11 (Original): The method of claim 10, wherein the transistors include an N-channel transistor and a P-channel transistor, each of which is operated by complementary signals.

Claim 12 (Original): The method of claim 8, wherein the first data is transferred from the first sense amplifier to the first bit line via a switching transistor, wherein the switching transistor is driven by a first voltage and then driven by a second voltage which is higher than the first voltage.

Claim 13 (Original): A method of storing data comprising:
transferring first data from a data line to a first sense amplifier, wherein the first

data is latched in the first sense amplifier;

transferring the first data from the first sense amplifier to a first bit line; and

transferring second data from the data line to a second sense amplifier, wherein the second data is latched in the second sense amplifier,

wherein a period of latching the second data from the data line to the second sense amplifier, and a period of transferring the first data from the first sense amplifier to the first bit line, are overlapped.

Claim 14 (Original): The method of claim 13, wherein the second bit line is included in a memory cell array block that is different from a memory cell array block in which the first bit line is included.

Claim 15 (Original): The method of claim 13, wherein the first data is transferred from the first sense amplifier to the first bit line via a pair of transistors which are connected in parallel.

Claim 16 (Original): The method of claim 15, wherein the transistors include an N-channel transistor and a P-channel transistor, each of which is operated by complementary signals.

Claim 17 (Original): The method of claim 13, wherein the first data is transferred from the first sense amplifier to the first bit line via a switching transistor, wherein the switching transistor is driven by a first voltage and then driven by a second voltage which is higher than the first voltage.

Claim 18 (Currently Amended): A method of transferring data comprising:

supplying a first voltage to a switching transistor which is connected between a sense amplifier and a bit line, wherein data having a voltage drop caused by a threshold voltage of the switching transistor is transferred from the sense amplifier to the bit line by the switching transistor responsive to the first voltage; and

supplying a second voltage which is higher than the first voltage to the switching transistor, wherein the data which does not have a voltage drop caused by the threshold voltage of the switching transistor is transferred from the sense amplifier to the bit line responsive to the second voltage.

Claim 19 (Canceled)